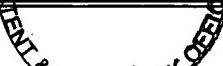




## FEE TRANSMITTAL

 <b>FEE TRANSMITTAL</b>	
<i><b>Complete if known</b></i>	
Application Number: 09/542,418	
Filing Date: April 4, 2000	
First Named Inventor: DiBiaso et al	
Group Art Unit: 3653	
Examiner Name: Nguyen, T.	
Total Amt. of Payment: (1)+(2)+(3)=	<b>\$410</b>
Attorney Docket Number: 0412-P02120US0	

**Submitted By:**

Typed or

Printed Name Stephen H. Eland

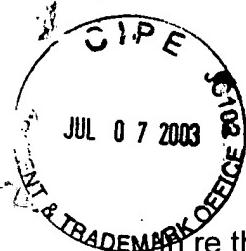
Reg. Number 41,010

**Signature**

*[Handwritten signature of Stephen H. Eland]*

Date July 3.2002

**Deposit Account User ID**  
04-1406



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Rec'd for Review  
Examiner  
7-16-03  
YUW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of **DiBiaso et al**

Application No. 09/542,418

Attorney Docket No. 0412-P02120US0

Filed: April 4, 2000

For: System and Method for Automated Document Processing

Examiner: Nguyen, T.

Group Art Unit: 3653

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**GROUP 3600**

**RESPONSE TO OFFICE ACTION**

In an Official Action dated February 3, 2003, the Examiner rejected the pending claims over Stevens et al '099 and Kruk et al '393. However, Stevens and Kruk are completely different machines. One is a manual mail processor; one is an automated mail processor. The Examiner picks and chooses features from these two patents and then combine the features when there is no teaching or suggestion to combine the features, and in fact the operation of the devices teach away from the combination. Further, the combination does not teach the features of the claims. The Examiner recognizes this fact, but then makes broad assumptions regarding the missing features. In other words, the Examiner is inappropriately using Applicants' patent as a roadmap to pick and choose features from the patents to try to read on Applicants' claims. Then when there are still features missing the Examiner uses Applicants' own disclosure against them to say that the claims are obvious. This is inappropriate. Accordingly, Applicants request that the Examiner reconsider the rejections of the pending claims.

**Claims 1-3**

The Examiner recognizes that neither Stevens nor Kruk has any suggestion of

the step of cutting the third side of the envelope at a depth that is thicker than the depth of cut of the first two sides. Nonetheless, the Examiner states that this is obvious because the depth of cut would depend on the size of the document in the envelope. The Examiner completely ignores the realities of the mail and how mail has been processed, as discussed in Applicants' previous responses.

The Examiner's argument that the depth of cut can depend on the documents in the envelope ignores how documents are processed. If a document is smaller than the envelope, the document may be located anywhere in the envelope. It may be shifted toward any of the four sides of the envelope. Therefore, envelope cutters have been configured to take a very thin slice of three of the sides to ensure that the documents are not cut (or are cut very slightly) regardless of where the documents are located in the envelope. In other words, the prior art clearly teaches the benefit of making thin cuts from all three sides. The Examiner has not addressed this issue in the Official Action

In direct contrast, Applicants' method recites setting the depth of cut of the third edge so that the depth of cut is greater than the depth of cut of either the first or second edges. In other words, Applicants' method recites making a thick cut on the third edge. This change in the procedure for processing mail solved the long-standing problem caused by folded corners when the prior art thin cut method is used. Specifically, when all three corners are cut using a thin cut, the thin cuts may not sever a corner if the corner is bent over. If the corners are not cut, the faces of the envelope cannot be properly pulled apart to extract the document.

There are thousands of patents directed to cutting open mail. If the Examiner believes that it is simply an obvious change, surely the Examiner would be able to find a patent that teaches cutting a third edge at a deeper depth of cut, as recited in claim 1. But there is no such teaching because the prior art taught away from using such cutting.

Since there is no teaching or suggestion in Stevens and/or Kruk of the step of setting the depth of cut for the third edge so that it is deeper than the first and second edges, claim 1 is patentable over the prior art references. Similarly dependent claims 2 and 3 are patentable over Stevens and Kruk. Accordingly, Applicants request that the Examiner reconsider the rejection of claims 1-3.

**Claims 14-19, 48-53 and 64-70**

The Official Action erroneously indicates that Stevens and Kruk suggest the features of independent claim 14 along with dependent claims 15-19 and 48-53, and independent claim 64 along with dependent claims 65-70. As discussed further below, claims 14 and 64 recite singulation of three documents. In contrast, Stevens et al '099 is not directed to singulating three documents, and does not have the capacity to singulate three documents. The Examiner admits that there is no teaching in Kruk of three documents, but assumes that it could be done by Kruk, and then makes the conclusion that this assumption combined with Stevens makes claims 14 and 64 obvious. This is inappropriate. Accordingly, Applicants request that the Examiner reconsider the rejection of claims 14 and 64, along with dependent claims 15-19, 48-53 and 65-70.

As discussed further below, Stevens is clearly directed to singulating two documents at a time so that the two documents can be processed. The structure of Stevens operates on pairs of documents and there is no suggestion of how the structure could or should be modified to singulate three documents. And there is nothing in Stevens to provide any motivation for singulating three or more documents. In fact Stevens teaches away from such a method. As can be seen clearly from the disclosure, Stevens is directed to high-speed, highly automated processing of mail. To do so the mail must be standardized so that only pieces that have exactly two documents (an invoice and a check) are processed. This teaches away from modifying

Stevens to singulate three documents, as discussed further below.

Stevens et al '099 is directed to an automated mail processing device. The device is configured to process singles transactions, which include a single invoice and a single check. To ensure that only envelopes having singles transactions are processed, the device scans the envelopes for certain criteria and then outsorts envelopes that may require special handling. See col. 7, lines 32-63 and col. 8 lines 55-60.

The envelopes that are qualified for extraction are then opened and the documents are extracted. The extracted documents are then conveyed to a separation station 31 to singulate the documents. See col. 8 line 66 - col. 9 line. However, the separation station 31 is only operable to separate two documents from one another. Specifically, the separation station 31 includes a pair of drums 508, 509. The first drum 508 has a higher coefficient of friction than the second drum 509. The two documents are conveyed in face to face relation between the drums 508, 509 so that the first document engages the friction drum 508 and the second document engages the retard drum 509.

While the documents are between the two drums, the friction drum 508 rotates clockwise and the retard drum 509 rotates counter-clockwise. In this way, the friction drum 508 drives the first document forwardly away from the singulator. The interface between the two documents is a paper to paper interface, which has a relatively low coefficient of friction, which is less than the frictional interface between the second document and the retard drum 509. Therefore, the friction between the documents is insufficient to drive the second document forward with the first document. Instead, the retard drum 509 holds back the second document when the friction drum 508 drives the first document forward. After the first document is conveyed away from the friction drum 508, the friction drum engages the second document, and drives it

forwardly behind the first document.

The Stevens device would not properly singulate three documents in face to face relation. The first document would engage the friction drum 508, the third would engage the retard drum 509 and the second document would be between the first and third documents. When the friction drum 508 drives the first document forwardly, the frictional force between the first document and the second document would tend to urge the second document forwardly along with the first document. Since the second document does not engage the retard drum, the only frictional force to hold back the second document is the frictional force between the second and third document. This is normally not sufficient to hold back the second document, so that the second document would be driven forwardly along with the first document. Therefore, the first and second documents would not be separated, which would cause subsequent processing problems.

In summary, the separation station disclosed in Stevens is not operable to singulate three or more documents at a time. Since Stevens is directed toward processing pairs of documents there is no teaching or suggestion in Stevens of a motivation to modify the separation station to accommodate three documents at a time. Therefore, there is no teaching or suggestion in Stevens of "a singulator operable to singulate three extracted documents in face to face relation and serially feed the documents along a document path", as recited in claim 14. Similarly there is no teaching or suggestion of "singulating . . . three extracted documents and serially feeding the documents along a document path", as recited in claim 64.

Nothing in Kruk fills the shortcomings of Stevens. Specifically, the Examiner recognizes that Kruk does not teach or suggest singulating three or more documents. This conclusively shows that the Examiner has not made a prima facie showing of obviousness. It doesn't matter what Kruk might teach or how Kruk could be

used. For patentability all that matters is what the patent actually teaches or suggests, and the Examiner has admitted the Kruk does not teach or suggest the claimed features that are missing from the Stevens reference. The Examiner has used Applicants' own disclosure to guess how Kruk could be used, and then combined that with Stevens without showing any suggestion for such a change and without showing any motivation for such a change. Accordingly, in light of the fact that neither Kruk nor Stevens teach or suggestion a singulator operable to receive three documents and serially feed the documents along a document path, claims 14 and 64 and dependent claims 15-19, 48-53 and 65-70 are patentable over Stevens and Kruk.

### **Claims 33-40**

The Official Action never discusses claims 33-40. In the summary, the Official Action indicates that claims 33-40 are obvious over Stevens and Kruk, but claims 33-40 are never discussed. As discussed below, claims 33-40 are patentable over Stevens alone or in combination with Kruk. If the Examiner continues the rejection of claims 33-40, Applicants request that the Examiner state the basis for the rejection and point to the teachings in Stevens and or Kruk so that Applicants can respond to such basis. However, Applicants believe that claims 33-40 are clearly patentable over Stevens and Kruk as discussed below, so Applicants request that the Examiner reconsider the rejection of claims 33-40.

As discussed in Applicants' application, in certain instances it may be desirable to cut documents into document portions and then process the document portions. See pages 41 to 43 of the present application. For instance, folded documents are normally inappropriate for automated processing because the folded documents cannot be properly scanned, and may buckle when they are transported, thereby causing a jam. Therefore, if an envelope is scanned and it is determined that the envelope contains a folded document, the envelope will normally be outsorted and processed by hand. See Stevens col. 17 lines 54-56.

Instead of rejecting envelopes having such folded documents, Applicants methodology provides for automatically processing the documents by severing the documents in an envelope and then extracting the severed portions. The severed portions are then monitored to ensure that the document portions remain associated with one another. Since Stevens simply outsorts such folded documents and does not describe severing a document into pieces and then processing the pieces, there is no teaching or suggestion of the methodology claimed in claims 33-40.

In addition, Kruk does not have any teaching that fills the shortcomings of Stevens. Kruk is directed to a workstation that presents opened envelopes to an operator for manually removing the documents from the envelope and then manually feeding the extracted documents into a scanner. Since the documents are manually extracted, there would be no motivation to sever the documents in the envelope as discussed above.

Accordingly, Applicants request that the Examiner reconsider the rejection of claims 33-40.

### **Claims 54-63**

The Official Action erroneously claims that claims 54-63 are obvious in light of Stevens and Kruk. Independent claims 54 and 64 are directed to the feature of Applicants' apparatus and methodology in which the thickness of an envelope is measured and the feeding of a subsequent envelope is controlled in response to the measured thickness. The Examiner has admitted that nothing in Stevens teaches or suggests controlling the feeding of envelopes in response to the thickness of a preceding envelope. However, the Examiner erroneously states that Kruk fills this shortcoming in the teaching of Stevens. Accordingly, as discussed further below, Applicants request that the Examiner reconsider the rejection of claims 54-63.

As discussed in the application, one of the features of Applicants' apparatus and methodology is the ability to process mail having differing numbers of documents in the different envelopes. After the mail is opened, the documents are extracted and then separated. To process the documents efficiently, it is desirable to minimize the gaps between the documents. At the same time, there should be adequate space in the flow of documents for each document to be serially conveyed after it is extracted.

For instance, if an envelope has two documents, the next envelope should be delayed a sufficient amount to allow a gap in the flow for accommodating the two documents after they are separated. In contrast, if a document has ten documents, then subsequent envelope must be delayed longer to allow a gap in the flow of documents to accommodate all ten documents after they are separated. It may be possible to set the feed rate of the envelopes at a rate sufficient to ensure adequate gaps for the maximum number of documents anticipated in a single envelope. However, doing so significantly increases the gaps between the documents since there will be unnecessarily large gaps between documents when there are fewer documents in an envelope. These unnecessary gaps reduce the throughput rate of the mail (i.e. The mail would be processed slower than necessary).

To minimize the gaps between documents and provide adequate gaps, Applicants' apparatus measures the thickness of an envelope after it is fed from an input bin. Based on the measured thickness, the apparatus may estimate the number of documents that are in the envelope and determine an appropriate gap to accommodate the anticipated number of documents. The feeding of the next envelope from the input bin is then controlled to provide the appropriate gap.

Referring now to the claims, claim 54 recites a thickness detector for detecting the thickness of a leading piece of mail, and a system controller operable to

control a feeder to feed a trailing piece of mail in response to the detected thickness of the leading piece of mail to maintain the proper spacing between the leading piece of mail and the trailing piece of mail. Similarly, claim 57 recites a method including the step of measuring the thickness of a leading piece of mail and determining the gap necessary between the leading piece of mail and the trailing piece of mail based on the measured thickness of the leading piece of mail. The method further includes the step of controlling the feeding of a trailing piece of mail to provide the determined gap.

The Official Action states that Kruk teaches a thickness detector for detecting the thickness of envelopes, which is true. However, the Examiner then makes the statement that Kruk uses the detected thickness to control the feeding of subsequent pieces to maintain proper spacing between the leading and trailing pieces. There is no reference to where this teaching is found in Kruk, so Applicants cannot address what features the Examiner contend teach this feature. However, Applicants can address this issue because there is no actual teaching or suggestion of such features in Kruk.

As discussed previously, Kruk is directed to a manual mail processing work station in which an operator manually extracts documents from envelopes as the mail is presented to the operator for removal. The extracted documents are then fed to a scanner. Kruk mentions that it may be desirable to ensure that only envelopes having a predetermined size are cut open. Col. 25 lines 7-8. That is why Kruk mentions that the device may include a thickness detector. If thickness detector measures a thickness that is outside a predetermined range (i.e the envelope is too thick or too thin), the envelope is outsorted so that it is never opened. Col. 25 lines 11-13. Accordingly, Kruk does not teach or suggest measuring the thickness of a piece of mail and then controlling the feeding of a subsequent piece of mail to ensure proper spacing between the contents of the pieces of mail. In fact, as discussed above, it would not make any sense for Kruk to teach such features since Kruk is directed to manual

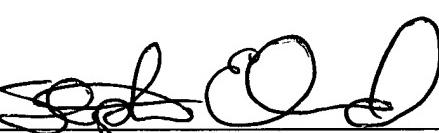
extraction. The operator can readily control the feeding of documents regardless of the number of pieces of mail in a particular piece of mail. Accordingly, as discussed above claims 54 and 57 are patentable over Stevens et al '099, along with dependent claims 55-56 and 58-63. Therefore, Applicants request that the Examiner reconsider the rejection of claims 54-63.

In light of the foregoing, Applicant believes that this application is in form for allowance. The Examiner is encouraged to contact Applicant's undersigned attorney if the Examiner believes that issues remain regarding the allowability of this application.

Respectfully submitted,

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By \_\_\_\_\_



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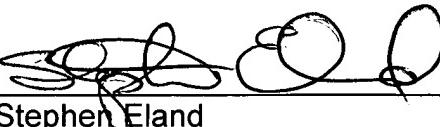
**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

I hereby certify that this Response and accompanying papers are being deposited on July 3, 2003 with the United States Postal Service as first-class mail in an envelope properly addressed to COMMISSIONER OF PATENTS AND TRADEMARKS, Washington, DC 20231

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July 3, 2003

Date of Certificate



Stephen H. Eland

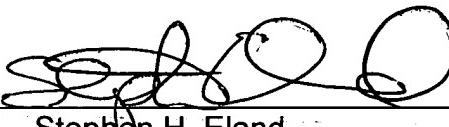
**Petition for Extension Under 37 CFR §1.136(a)**

Applicant's undersigned Attorney hereby petitions for an extension of time of **TWO** months beyond the time period set in the last office communication. The proper fee is enclosed as identified in the enclosed Fee Transmittal form.

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July 3, 2003

Date of Certificate



Stephen H. Eland

PTO Registration No. 41,010